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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,864	02/10/2006	Yugo Yamamoto	1000023-000098	7281

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EXAMINER	
TISCHLER, FRANCES	

ART UNIT	PAPER NUMBER
4171	

NOTIFICATION DATE	DELIVERY MODE
05/12/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/567,864	YAMAMOTO ET AL.	
	Examiner	Art Unit	
	Frances Tischler	4171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/10/06, 11/15/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 24 is objected to because of the following informalities: Applicant used the sign for copyright, ©, where applicant probably meant to write (C). Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention. \

3. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 22 recites the limitation "compound (B)" in the second line. There is insufficient antecedent basis for this limitation in the claim. Applicant claims a "compound (B) wherein component (B) comprises a compound containing an oxetanyl group". It is unclear if (B) is a compound or a component of a compound or a composition made of several compounds.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Takamatsu et al (US6586496 or JP2001-089743).

7. Regarding claims 22 and 23: Applicant claims a photo-curable resin composition comprising a photopolymerization initiator (A), a cationically polymerizable compound (B) containing an oxetanyl group and a fluorine-containing organic compound, and optionally (0 to 250 parts by mass) an inorganic filler. Takamatsu discloses (abstract, column 2, lines 33 – 64 and claim 1) a photo-curable resin composition comprising a compound having an oxetane ring optionally containing fluorine (column 3, lines 29 – end, columns 4 – 8), a photoinitiator for cationic polymerization (column 9, lines 5 – 44), an inorganic filler (column 10, lines 1 – 21) and a silane coupling agent. Applicant claims a mass ratio of at least 1/1000 of the oxetanyl group, which corresponds to Takamatsu's 0.1 - 99.8% by weight. Applicant claims an inorganic filler of 0 to 250 parts by mass, corresponding to Takamatsu's 0 – 70% by weight of inorganic filler (column 2, lines 61 – 62). The amount of fluorine atoms present in the oxitane complex can vary and corresponds to applicant's claim of a fluorine-containing organic compound with an amount of fluorine greater than zero and less than 40% by mass. Takamatsu also discloses (column 11, lines 25 – 35) the optional use of other resin components, such as fluorine-containing oligomers, which corresponds to applicant's fluorine-containing organic compound in (B).

8. Regarding claims 24 and 25: applicant claims a photo-curable resin composition comprising a photopolymerization initiator (A), a cationically polymerizable compound

(B), a cyclic polyether compound and a filler. Takamatsu teaches the invention as disclosed in the paragraph above in addition to a compound having an epoxy group (column 2, lines 50 and 62, column 10, lines 22 – 57), such as bisphenol F diglycidyl ether, which correlates to applicant's cyclic polyether compound (C). Takamatsu discloses (column 2, lines 63 - 64, column 11, lines 6 – 8) an amount of 0 to 99.7% by weight of the cyclic polyether compound, corresponding to applicant's 0.3 to 10% by mass. Applicant claims an amount of 0 – 40% by mass of fluorine in either components (B) or (C), corresponding to Takamatsu's fluorinated oxetane complexes or the optionally-added fluorine-containing oligomer resinous components.

9. Regarding claims 26 –and 27: applicant claims a photo-curable resin composition comprising a photopolymerization initiator (A), a cationically polymerizable compound (B), another organic compound (D), and a filler. Takamatsu teaches the invention as disclosed in paragraphs 6 and 7 above in addition to a compound having an epoxy group, which corresponds to applicant's organic compound (D). Takamatsu also discloses (column 2, lines 43 and 59 – 60, column 9, lines 47 - 67) the use of an organic silane coupling agent which also corresponds to applicant's organic compound (D). The percentage of oxetanyl group, fluorine and filler used is disclosed in the above paragraphs and corresponds to applicant's percentages.

10. Regarding claims 28 and 29: applicant claims a photo-curable resin composition comprising a photopolymerization initiator (A), a cationically polymerizable compound (B), a cyclic polyether compound (C), another organic compound (D) and a filler. Takamatsu teaches the invention, as disclosed above in paragraphs 6 - 8, of a photo-

curable resin composition comprising a compound having a photoinitiator for a cationic polymerization corresponding to applicant's (A), an oxetane ring corresponding to applicant's (B), a filler corresponding to applicant's filler, an epoxy group corresponding to applicant's (C) and an organic silane coupling agent, corresponding to applicant's (D). Takamatsu discloses (column 2, lines 48 – 64) 0.1 – 99.8 % by weight of the oxitane group, corresponding to applicant's of at least 1/1000 mass ration of oxetanyl group and 1 to 90% by mass of component (B); 0 – 99.7% by weight of the epoxy group corresponding to applicant's 0.3 – 10% by mass of the cyclic polyester group (C); and an inorganic filler of 0 – 70% by weight corresponding to applicant's 9 - 250 parts by mass. Applicant claims at least one of the components (B), (C) or (D) comprise a fluorine-containing organic compound in an amount of 0 to 40% by mass in terms of the fluorine atom, which corresponds to Takamatsu's fluorinated oxetane complexes or the optionally-added fluorine-containing oligomer resinous components, which can be present at 0% and above.

11. Regarding claims 30 and 31: as discussed above, Takamatsu's oxetane group may contain fluorine atoms and/or coupling agents of fluorine-containing oligomers may be used in the composition.

12. Regarding claim 32: Takamatsu discloses (column 3, lines 7 - 9, claims 3, 8 and 11) a sealing material for flat panel display comprising the photo-curable resin composition, corresponding to applicant's sealing agent for a flat panel display comprising the photo-curable resin composition.

13. Regarding claim 33: Takamatsu discloses (column 3, lines 13 – 19, claims 4, 6, 9 and 13) a method for sealing an article to be sealed comprising applying the sealing material and a method for sealing a display cell of liquid crystal display or an electroluminescence display comprising applying the sealing material, corresponding to applicant's method for sealing a flat panel display using the sealing agent.

14. Regarding claim 34: Takamatsu discloses (column 3, lines 20 – 25 and claim 5) sealed articles comprising cured layer of sealing material which seals the article, and a display based on liquid crystal or electroluminescence comprising a display cell sealed by the sealing material, corresponding to applicant's flat panel display which is obtained by the method for sealing.

Prior Art Cited But Not Applied

15. Any prior art reference which is cited on Form PTO-892 but not applied is cited to show the general state of the art at the time of applicant's invention. Said references teach photo-curable resin compositions for sealing various materials and objects and methods of sealing.

Examiner Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frances Tischler whose telephone number is (571)270-5458. The examiner can normally be reached on Monday-Friday 7:30AM - 5:00 PM; off every other Friday.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 4174

Frances Tischler
Examiner
Art Unit 4171

/FT/